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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DONAGHUE, LARRY D

ART UNIT PAPER NUMBER

2154

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/477,880

Applicant(s)

BLAHUT ET AL.

Examiner

Larry D. Donaghue

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/19/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,7-10,12-25 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-10 and 22-25 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,12-21 and 27-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-2,4-5, 7-10, 12-25 and 27-32 are presented for examination.
2. **Claims 7-10 and 22-25 are allowed.**
3. The rejection is maintained and set forth below.
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 4, 12-19,20, and 27-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Hrastar et al. (6,286,058).

6. As to claim 1, Hrastar et al. taught the specifying routing information for an endpoint, wherein the routing information specifies primary and alternative Internet Protocol (IP) addresses (901); and communicating data to the endpoint using the specified primary IP address except during periods of service interruption in which one of the alternative IP addresses are used Col. 14, lines 11-62).

As to claim 4, Hrastar et al. taught storing a routing table comprising an first Internet Protocol (IP) address associated with routing data to an endpoint via the primary communications channel (132) and a second IP address (901) associated with routing data to the endpoint over a secondary communications channel (131); and routing data to the endpoint as a function of the routing table (901) such that during periods of service interruption on the primary communications channel data is routed to the endpoint via the secondary communications channel, whereas data is routed to the endpoint via the primary communications channel otherwise (col. 14, lines 11-62).

As to claim 12, Hrastar et al. taught an apparatus comprising: a device (101) for (a) specifying routing information for an endpoint, wherein the routing information specifies primary and alternative Internet Protocol (IP) addresses (901), and (b) communicating data to the endpoint using the specified primary IP address except during periods of service interruption in which one of the alternative IP addresses are used (col. 14, lines 11-62).

As to claim 14, Hrastar et al. taught an apparatus (122) for use in providing Internet service to an endpoint, the apparatus comprising: a device (101) for routing data to the endpoint as a function of a routing table (901) stored therein such that during periods of service interruption on a primary communications channel (132) associated with a

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primary IP address data (901) is routed to the endpoint via a secondary communications channel (131) associated with a secondary IP address (901), whereas data is routed to the endpoint via the primary communications channel otherwise (col. 14, lines 11-62)

As to claim 16, Hrastar et al. taught a cable head-end router (101) for providing Internet Protocol (IP) packets intended for subsequent conveyance over a primary channel (132); and a cable modem data termination system (122) responsive to the provided IP packets for routing the IP packets to an endpoint as a function of a routing table (901) stored therein such that during periods of service interruption on the primary communications channel the IP packets are routed to the endpoint via a secondary communications channel (131) associated with a secondary IP address, whereas the IP packets are routed to the endpoint via the primary communications channel associated with a primary IP address otherwise (col. 14, lines 11-62).

As to claim 17, Hrastar et al. taught a cable head-end router (122) for providing Internet Protocol (IP) packets that include a destination field having a value associated with a first IP address (901); and a cable modem data termination system (122) responsive to the provided IP packets for communicating the IP packets to the endpoint using the first IP address except during periods of service interruption in which an alternative IP address (901) is used (col. 14, lines 11-61).

As to claim 18, Hrastar et al. taught specifying routing information for an endpoint, wherein the routing information specifies primary and alternative Internet Protocol (IP) addresses (901); and communicating data to the endpoint using the specified primary IP address (901) over a first cable-based communications channel (132) except during periods of service interruption (col. 14, lines 11-62) in which one of the alternative IP addresses are used for communicating over a second non-cable-based communications channel (131).

As to claim 20, Hrastar et al. taught storing a routing table (901) comprising an first-Internet Protocol (IP) address associated with routing data to an endpoint via the primary communications channel (132) and a second IP address (901) associated with routing data to the endpoint over a secondary communications channel (131); and routing data to the endpoint as a function of the routing table such that during periods of service interruption on the primary communications channel data is routed to the endpoint via the secondary communications channel, whereas data is routed to the endpoint via the primary communications channel otherwise and wherein the primary communications channel and the secondary communications channel are supported by physically different communications mediums (col. 14, lines 11-62).

As to claim 27, Hrastar et al. taught a device for (a) specifying routing information for an endpoint, wherein the routing information specifies primary and alternative Internet Protocol (IP) addresses (901), and (b)

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communicating data to the endpoint using the specified primary IP address over a first cable-based channel(132) except during periods of service interruption in which one of the alternative IP addresses are used for communicating data over a second non-cable-based communications channel (131). See Col. 14, lines 11-43 and lines 54-62.

As to claim 29, Hrastar et al. taught a device (101) for routing data to the endpoint as a function of a routing table (901) stored therein such that during periods of service interruption on a primary communications channel (132) associated with a primary IP address data is routed to the endpoint via a secondary communications channel (131) associated with a secondary IP address (901), whereas data is routed to the endpoint via the primary communications channel otherwise and wherein the primary communications channel is physically different from the secondary communications channel (col. 14, lines 11-61).

As to claim 31, Hrastar et al. taught a cable head-end router (101) for providing Internet Protocol (IP) packets intended for subsequent conveyance over a primary cable channel (132) ; and a cable modem data termination system (122) responsive to the provided IP packets for routing the IP packets to an endpoint as a function of a routing table (901) stored therein such that during periods of service interruption on the primary cable channel the IP packets are routed to the endpoint via a secondary non-cable communications channel (131) associated with a secondary IP address (901), whereas the IP packets are routed to the endpoint via the primary cable channel associated with a primary IP address otherwise (col. 14, lines 11-62).

As to claim 32, Hrastar et al. taught a cable head-end router (101) for providing Internet Protocol (IP) packets that include a destination field having a value associated with a first IP address (901) ; and a cable mode data termination system (122) responsive to the provided IP packets for communicating the IP packets to the endpoint over a cable-based communications channel (132) using the first IP address except during periods of service interruption in which an alternative IP address (901) is used for communicating the IP packets to the endpoint over a non-cable-based communications channel (131) . See Col. 14, lines 11-43 and lines 54-62.

As to claims 13 ,15, 28 and 30. Hrastar et al. taught the device is a part of a cable television network ,CATV (101, 122).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 2, 5, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hrastar et al. (6,286,058) as applied to claims 1,4,18 and 20 above, and further in view of Nordman (6,061,346).

As to claims 2, 5, 19 and 21, Hrastar et al. taught detecting the service interruption (Col. 14, lines 54-62).

Hrastar et al. did not expressly teach establishing an IP tunnel to the endpoint using one of the alternative IP addresses; and forwarding the data via the IP tunnel to the endpoint.

Nordman taught the use of tunneling to establish an IP connection (Col. 8, line 9-24). It would have been obvious to one of ordinary skill in the data processing art at the time of the invention to combine these two references as establishing a tunnel to improve the security of the connection (Col. 8, lines 9-24).

9. Applicant's arguments filed 01/19/2006 have been fully considered but they are not persuasive.

Applicant states In contrast, Hrastar does not disclose or suggest specifying alternative IP addresses for an endpoint nor using these alternative addresses to communicate data during periods of service interruption. In the Office Action the Examiner directs the Applicants attention to column 14, lines 11-62 of Hrastar to support the Examiners position that Hrastar does disclose this subject matter. However, this is not the case. In column 14, lines 11-62 Hrastar describes two situations. The first situation is when an RF link, which connects a head-end 122 to a host's RIF modem 106, is functioning properly. If so then a "destination IP address" is masked so that only a Net1D 605 is used for routing. The second situation is when the RF link fails. When this occurs the masked IP address is "unmasked" and used as the destination IP address. Whether masked or unmasked this address is still only a single EP address. Thus, instead of disclosing and suggesting the use of alternative IP addresses when a service interruption occurs, Hrastar discloses the use of the same, albeit unmasked IP address when an RF link fails.

RESPONSE

The references set forth the following in col. 14(noted bolded passages).

Since that is the case, entry 903(i) matches every destination IP address 307 with that Net ID 605, that is, the net addresses for all of the hosts which are connected to the RF network to which cable 132 belongs. **The gateway IP address is IP address 203(c) for communications manager 102.** Thus, unless there is an entry 903 whose mask is longer than the one used with entry 903(i), the packet is routed to communications manager 102.

If all or part of the RF link fails, an entry like that for 903(j) is made in routing table 901 for each host 108 attached to an RF modem 106 whose RF link has failed. In this entry, the unmasked IP address of the host is used as the destination IP address and **the gateway IP address is IP address 214(b)**, which is the address of modem pool 135. As long as entry 903(i) exists in routing table 901, packets addressed to the host 108 specified in the

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destination IP address will go by way of modem pool 135 and public switched telephone network 109, rather than by way of cable 132.

Therefore the references set forth a primary IP address and a secondary IP address in the routing information.

Applicant states Further, Applicants respectfully submit that the combination of Hrastar and Nordman is impermissible because such a combination requires either one or both of these references to change their principle of operation, which is impermissible (MPEP 2143.01). For example, Hrastar is directed to a CATV system while Nordman is directed to a wireless system. Either Hrastar's principle of operation would have to be changed so that it would be compatible with the wireless system of Nordman or Nordman's wireless system would have to be changed to be compatible with the CATV system of Hrastar. Either is impermissible.

RESPONSE

Examiner disagrees as both references are directed to routing data in a network.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

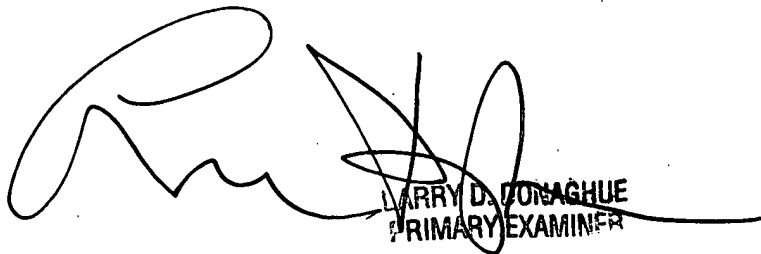
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larry D. Donaghue whose telephone number is 571-272-3962. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HARRY D. DONAGHUE
PRIMARY EXAMINER